

SERVICE QUALITY THROUGH EMPLOYEE KNOWLEDGE, SKILLS AND
ABILITIES (KSAs): A STUDY AMONG THIRD PARTY LOGISTICS IN
ISKANDAR MALAYSIA

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DEDICATION

I dedicate this thesis to

Almighty ALLAH S.W.T,

**My father (Roslan Bin Khairuddin), my mother (Nor AishahBintiYahya) and
siblings,**

For your love, care and encouragement.

My supervisor and co-supervisor,

For your help, encouragement and guidance to ensure the success of this thesis.

Friends,

For your help and encouragement.

**And everyone who involves directly and indirectly in the process of completing
this thesis.**

Thank you.

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All praise to God, the Greatest that gives perfection and facility in applying all tasks and responsibilities.

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ABSTRACT

Logistics in Iskandar Malaysia has been one of the identified growth nodes and has been contributing high revenue through wholesale and retail trade (42.2%) and transport and related (12.7%). The main objectives of this study are to identify the necessary service quality dimensions that customers expect from the logistics service providers, to identify the gaps between customers' satisfaction and desire, and to explore knowledge, skills and abilities (KSAs) required for employees of logistics service providers to provide excellent services. Hence, this study is aimed to examine the service quality provided by third party logistics in Iskandar Malaysia. The scopes of this study are the customers from three pillars of Iskandar Malaysia that outsource their logistics activities, and human resource representatives from third party logistics service providers. This study used both quantitative and qualitative methods. The sampling method used for quantitative is quota sampling. The data obtained answered all three objectives of this study. There are six dimensions of service quality which they are tangible, reliability, responsiveness, assurance, empathy and service cost identified that are perceived to be necessary in third party logistics' service. There are positive gaps for all six dimensions of service quality between the expectation of the customers before receiving the services and the perception of the customers after they receive the services. Lastly, there are 7 variables identified to be under knowledge factor, 12 variables for skills factor, 9 variables for abilities factor and 4 variables for other factors that are required for employees of logistics services. The findings are expected to help third party logistics service providers to enhance their service quality in order to ensure the satisfaction of their customers.

ABSTRAK

Logistik di Iskandar Malaysia telah menjadi salah satu daripada nodus pertumbuhan yang telah dikenalpasti dan telah menyumbang pendapatan yang tinggi melalui perdagangan borong dan runcit (42.2%), dan pengangkutan dan yang berkaitan (12.7%). Objektif utama bagi kajian ini adalah mengenalpasti dimensi kualiti perkhidmatan yang pelanggan harapkan daripada pembekal perkhidmatan logistik, mengenalpasti jurang di antara keinginan dan kepuasan pelanggan, dan meneroka pengetahuan, kemahiran dan kebolehan (KSAs) yang diperlukan pada pekerja-pekerja pembekal perkhidmatan logistik dalam memberikan perkhidmatan yang cemerlang. Sehubungan itu, kajian ini adalah bertujuan mengkaji kualiti perkhidmatan yang disediakan oleh pihak logistik ketiga di Iskandar Malaysia. Skop bagi kajian ini adalah pelanggan daripada tiga tunggak Iskandar Malaysia yang menggunakan khidmat luar bagi aktiviti logistik mereka, dan wakil sumber manusia daripada pihak ketiga pembekal perkhidmatan logistik. Kajian ini menggunakan kedua-dua kaedah iaitu kuantitatif dan kualitatif. Kaedah persampelan yang digunakan untuk kuantitatif adalah persampelan kuota. Data yang diperoleh telah menjawab kesemua objektif kajian. Terdapat enam dimensi kualiti perkhidmatan yang telah dikenalpasti iaitu nyata, realibiliti, maklum balas, keyakinan, empati dan kos perkhidmatan yang dilihat sebagai penting dalam perkhidmatan oleh pihak ketiga logistik. Terdapat jurang kepuasan yang positif bagi kesemua enam dimensi kualiti perkhidmatan di antara harapan pelanggan sebelum menerima perkhidmatan dengan persepsi pelanggan selepas menerima perkhidmatan. Akhir sekali, terdapat 7 pembolehubah yang dikenalpasti di bawah faktor pengetahuan, 12 pembolehubah bagi faktor kemahiran, 9 pembolehubah bagi faktor kebolehan, dan 4 pembolehubah bagi faktor lain-lain yang diperlukan pada setiap pekerja perkhidmatan logistik. Dapatan kajian ini dijangkakan dapat membantu pihak ketiga pembekal perkhidmatan logistik dalam memajukan perkhidmatan mereka bagi memastikan kepuasan pelanggan.

TABLE OF CONTENTS

CHAPTER	CONTENTS	PAGES
	TITLE	i
	DECLARATION	ii
	DEDICATION	iii
	ACKNOWLEDGEMENT	iv
	ABSTRACT	v
	ABSTRAK	vi
	CONTENTS	vii
	LIST OF TABLES	xi
	LIST OF FIGURES	xii
	LIST OF ABBREVIATION	xiii
	APPENDIXES	xiv

CHAPTER 1	INTRODUCTION	PAGES
	1.1 Introduction	1
	1.2 Research Background	1
	1.3 Problem Statement	3
	1.4 Research Questions	6
	1.5 Research Objectives	7
	1.6 Research Scope	7
	1.7 Thesis Structure	8
	1.8 Conclusion	9
CHAPTER 2	LITERATURE REVIEW	
	2.1 Introduction	10
	2.2 What is Quality?	11

2.3 Total Quality Management	12
2.4 Service Quality	14
2.4.1 Logistics Service Quality	15
2.4.2 SERVQUAL Model	17
2.5 Theory of Customer Behaviour	23
2.5.1 Customers' Satisfaction	23
2.6 Relationship between Service Quality and Customers' Satisfaction	24
2.7 Human Capital	26
2.7.1 Knowledge, Skills and Abilities	27
2.8 Elements of Knowledge, Skills and Abilities (KSAs) Needed to Increase Service Quality	30
2.9 Iskandar Malaysia	30
2.10 Logistics	32
2.11 Third Party Logistics (3PL)	33
2.12 Final Conceptual Framework	34
2.13 Conclusion	35
METHODOLOGY	
3.1 Introduction	36
3.2 Research Approaches	36
3.2.1 Mono Method	37
3.2.1.1 Quantitative Method	38
3.2.1.2 Qualitative Method	38
3.2.2 Multiple Methods	39
3.2.2.1 Multi-Methods	39
3.2.2.1.1 Multi-Methods Quantitative Study	39
3.2.2.1.1 Multi-Methods Qualitative Study	40
3.2.2.2 Mixed Methods	40
3.2.2.2.1 Mixed Methods Research	40
3.2.2.2.2 Mixed Model Research	41
3.2.3 Mixed Method Research Approach for The Study	41

3.3 First Phase (Quantitative)	
3.3.1 Research Population	43
3.3.2 Sampling Frame	44
3.3.3 Sampling Method/Technique	44
3.3.4 Data	45
3.3.5 Data Collection Procedure	45
3.3.6 Research Questionnaires	46
3.3.6.1 Format	48
3.4 Second Phase (Qualitative)	
3.4.1 Sample Selection	49
3.4.2 Research Interview Questions	50
3.4.2.1 Format	50
3.5 Data Analysis	51
3.5.1 Description Analysis	51
3.5.2 Multiple Response Analysis	51
3.5.3 Mean Score	52
3.5.4 Paired T-Test	52
3.5.5 Gap Analysis	52
3.5.6 Quadrant Analysis	53
3.5.7 Analysis of Qualitative Data	53
3.6 Pilot Study	54
3.7 Reliability Test of Research Instrument	54
3.8 Conclusion	55

CHAPTER 4 DATA ANALYSIS

4.1 Introduction	56
4.2 Reliability Test of Research Instruments	56
4.3 Survey Response Rate	57
4.4 Descriptive Analysis	
4.4.1 Demographic	58
4.5 Mean Score	60
4.6 Paired T-Test	61
4.7 Gap Analysis	61
4.7.1 Result of Gap Analysis	62

4.7.2 Quadrant Analysis	64
4.8 Qualitative	
4.8.1 Interview Analysis	68
4.9 Conclusion	74

CHAPTER 5 FINDINGS AND DISCUSSION

5.1 Introduction	75
5.2 Discussions on Research Objectives	
5.2.1 Service quality dimensions do customers perceive to be necessary in Iskandar Malaysia's 3PL service companies to meet customers' satisfaction.	76
5.2.2 Gaps of customers' satisfaction towards service quality of 3PL importance-performance	77
5.2.3 KSAs required for employees of logistics service providers to provide excellent service	79
5.3 Suggestions for Improvement	83
5.4 Contribution of Study	
5.4.1 Practical Contribution	83
5.4.2 Theoretical Contribution	84
5.5 Research Limitations	85
5.6 Recommendation for Further Research	86
5.7 Summary	86

REFERENCES	87-95
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APPENDIXES

VITAE

LIST OF TABLES

NO.	TITLE	PAGES
1.1	Logistics performance index (LPI) global ranking score for Malaysia and Singapore	4
2.1	Ten Determinants of Service Quality	17
2.2	Definitions of SERVQUAL Model's Dimensions	18
2.3	Frequency of Service Quality's Dimensions	19
2.4	Relationship between Service Quality and Customers' Satisfaction	26
2.5	Elements of Knowledge, Skills and Abilities (KSAs)	28
3.1	Derived Questions of Service Quality's Dimensions	46
3.2	Cronbach's Alpha Value for Pilot Test	54
3.3	Value Number of Internal Consistency Range	55
4.1	Cronbach's Alpha Value for Real Test	57
4.2	Result of Respondents of the Survey	57
4.3	Demographic Analysis	59
4.4	Mean Score	60
4.5	Ranking of Mean Score for Each Dimension of Service Quality	60
4.6	Gap Value Paired T-Test	61
4.7	Gap Analysis	62
4.8	Ranking of Performance of Service Quality's Dimensions	62
4.9	Quadrant Analysis	65
4.10	Respondents for the Interview Sessions	68
4.11	Results of Knowledge, Skills and Abilities	69
5.1	Knowledge, Skills and Abilities for Logistics Service Sector	81

LIST OF FIGURES

NO.	TITLE	PAGES
1.1	Logistics Performance Index (LPI)	4
2.1	Dimensions of Service Quality	19
2.2	Descriptions of Service Quality's Dimensions	22
2.3	Relationship Service Quality and Customers' Satisfaction	25
2.4	Five Flags of Iskandar Malaysia	31
2.5	Pillars in Iskandar Malaysia	32
2.6	Final Conceptual Framework	34
3.1	Types of Research Approach	37
3.2	Mixed Method Approach Adopted for this Study	43
4.1	Scatter Plot of Gap Analysis	63
4.2	Quadrant Analysis (Original)	64
4.3	Quadrant Analysis (Amended)	65
4.4	Quadrant Analysis of the Research	67

LIST OF ABBREVIATION

3PL	-	Third Party Logistics
IDR	-	Iskandar Development Region
IM	-	Iskandar Malaysia
IRDA	-	Iskandar Regional Development Authorities
JSIC	-	Johor State Investment Centre
CS	-	Customers' Satisfaction
KSAs	-	Knowledge, Skills and Abilities
SPSS	-	Statistical Package Social Science
SQ	-	Service Quality
TQM	-	Total Quality Management



PT Tunku Tun Aminah
PERPUSTAKAAN TUNKU TUN AMINAH

LIST OF APPENDIXES

Survey Questions

Interview Questions

Result



CHAPTER 1

INTRODUCTION

1.1 Introduction

This chapter introduces research background, problem statement, research questions, research objectives, research limitations, research significance, and thesis structures; followed by the conclusion of this chapter. Research background focuses on Iskandar Malaysia, logistics activities and human capital development. The problem statement is based on the impact of knowledge, skills and abilities (KSAs) among employees of logistics service providers' in Iskandar Malaysia in delivering best service quality in order to gain customers' satisfaction to gain competitive advantages. The objective of this research is identifying KSAs that is required from logistics' human capital and the relationship between logistics service quality and customers' satisfaction. This chapter discusses further information of this research.

1.2 Research background

Malaysian fourth Prime Minister, Tun Dr Mahathir bin Mohamad came out with Vision 2020 during the tabling of Sixth Malaysia Plan in 1991. The vision is targeted to be the achievement of self-sufficient industrialized nation by the year of 2020 and to gain eightfold Gross Domestic Product (GDP) from RM115 billion in 1990 to

RM920 billion (Muhammad, Sulaiman & Sanusi, 2012; Eleventh Malaysia Plan (11th MP), 2015). In order to achieve the vision, five regional corridors have been initiated in order to propel the economic growth. These five regional economic corridors are Northern Corridor Economic Region (NCER); East Cost Economic Region (ECER); Sarawak Corridor of Renewable Energy (SCORE); Sabah Development Corridor (SDC); and Iskandar Malaysia (Muhammad *et al.*, 2012). These five corridors were initiated during the Ninth Malaysia Plan by Malaysia fifth Prime Minister, Tun Abdullah Ahmad Badawi and it embarked a number of initiatives to promote balanced regional development and accelerate growth in designated geographic areas (Tenth Malaysia Plan (10th MP), 2010).

In realizing the importance of the human capital development, Dato Seri Najib Tun Abdul Razak, current Prime Minister, pursued a strategy which is called as Economic Transformation Programme (ETP) that focused on human capital development and it is predicted that business growth are based from human capital. Human capital is the most crucial factor in economic growth and it is critical to the success of economic growth in Malaysia (Muhammad *et al.*, 2012). Therefore, the rapid growth of economy in global market does take human resource as a key role in maintaining competitive business in industry.

The Human Capital Development Strategic Reform Initiative (SRI) in ETP has two key areas, which they are Education National Key Economic Area (NKEA) and National Key Reformation Area (NKRA), both focused on the future generations, and it is a critical enabler for this nation to transform the workplace as well as the workforce (Muhammad *et al.*, 2012). Malaysia's economy will undergo significant changes similar to other developed nations if the implementation of ETP succeeded. The most required changes will be the enhancement of human capital investments to support a high-skilled, knowledge-based and innovation-intensive economy (Muhammad *et al.*, 2012). Furthermore, in 11th Malaysia Plan (2015) human capital development is a critical enabler for driving and sustaining the Malaysia's economic growth which the 11th Malaysia Plan will continue to push the agenda of producing human capital that is equipped with the right knowledge, skills and attitudes to growth in a globalised economy.

Furthermore, in order to compete, strong emphasis on human capital development will sustain and ensures a steady and sufficient supply of skilled and semi-skilled manpower to meet the needs of the expanding industrial and service

sectors. Skilled workforce is vital for the economic development especially in these fast-changing requirements in identifying the future supply and demand for human capital. In addition, to sustain the economic growth in an increasingly competitive business environment is to have skilled and knowledgeable workers as one of the important factors (Muhammad *et al.*, 2012).

A skilled, knowledgeable, and able to provide best service workforce leads to high quality of service, hence, keep the customer happy and satisfied with the services. The original SERVQUAL model used to evaluate service quality is from Parasuraman *et al.* (1988) that has five dimensions, consist of tangible, reliability, responsiveness, assurance, and empathy. However, according to Banomyong and Supatn (2010), for logistics service sectors, the SERVQUAL model needs to add service cost as additional dimension to the five dimensions earlier.

This study is focuses on Iskandar Malaysia, one of the economic corridors. Iskandar Malaysia is located in southern peninsular Malaysia and it covers a land size of 2,217 sq km (221,634 hectares). In 2005, Iskandar Malaysia was estimated to have 1.35 million people or in 43% of Johor's population with the workforce of approximately 66% of the population (Iskandar Development Region, 2007).

1.3 Problem statement

Based on latest Logistics Performance Index (LPI) for 2014, Malaysia is at the 25th rank in the world with range index of 3.59 compared to Singapore, which is currently at the 5th rank in the global logistics activity with range index of 4.00 (The World Bank, 2015). There are six core dimensions that contribute to the average index of LPI. Those dimensions are customs, infrastructure, international shipments, logistics competence, tracking and tracing, and timeliness. The data obtained from The World Bank (2015) are as shown in figure 1.1.

Country	Year	LPI Rank	LPI Score	Customs	Customs	Infrastructure	Infrastructure	International shipments	International shipments	Logistics competence	Logistics competence	Tracking & tracing	Tracking & tracing	Timeliness	Timeliness
Germany	2014	1	4.12	2	4.1	1	4.32	4	3.74	3	4.12	1	4.17	4	4.36
Netherlands	2014	2	4.05	4	3.96	3	4.23	11	3.64	2	4.13	6	4.07	6	4.34
Belgium	2014	3	4.04	11	3.8	8	4.1	2	3.8	4	4.11	4	4.11	2	4.39
United Kingdom	2014	4	4.01	5	3.94	6	4.16	12	3.63	5	4.03	5	4.08	7	4.33
Singapore	2014	5	4	3	4.01	2	4.28	6	3.7	8	3.97	11	3.9	9	4.25
Sweden	2014	6	3.96	15	3.75	9	4.09	3	3.76	6	3.98	7	3.97	8	4.26
Norway	2014	7	3.96	1	4.21	4	4.19	30	3.42	1	4.19	31	3.5	5	4.36
Luxembourg	2014	8	3.95	10	3.82	15	3.91	1	3.82	14	3.78	22	3.68	1	4.71
United States	2014	9	3.92	16	3.73	5	4.18	26	3.45	7	3.97	2	4.14	14	4.14
Japan	2014	10	3.91	14	3.78	7	4.16	19	3.52	11	3.93	9	3.95	10	4.24
Ireland	2014	11	3.87	12	3.8	16	3.84	27	3.44	9	3.94	3	4.13	16	4.13
Canada	2014	12	3.86	20	3.61	10	4.05	23	3.46	10	3.94	8	3.97	11	4.18
France	2014	13	3.85	18	3.65	13	3.98	7	3.68	15	3.75	12	3.89	13	4.17
Switzerland	2014	14	3.84	7	3.92	11	4.04	15	3.58	16	3.75	18	3.79	21	4.06
Hong Kong, China	2014	15	3.83	17	3.72	14	3.97	14	3.58	13	3.81	13	3.87	18	4.06
Australia	2014	16	3.81	9	3.85	12	4	18	3.52	17	3.75	16	3.81	26	4
Denmark	2014	17	3.78	13	3.79	17	3.82	9	3.65	18	3.74	36	3.36	3	4.39
Spain	2014	18	3.72	19	3.63	20	3.77	21	3.51	12	3.83	26	3.54	17	4.07
Taiwan	2014	19	3.72	21	3.55	24	3.64	5	3.71	25	3.6	17	3.79	25	4.02
Italy	2014	20	3.69	29	3.36	19	3.78	17	3.54	23	3.62	14	3.84	22	4.05
Korea, Rep.	2014	21	3.67	24	3.47	18	3.79	28	3.44	21	3.66	21	3.69	28	4
Austria	2014	22	3.65	23	3.53	25	3.64	40	3.26	26	3.56	10	3.93	23	4.04
New Zealand	2014	23	3.64	6	3.92	22	3.67	8	3.67	27	3.56	38	3.33	40	3.72
Finland	2014	24	3.62	8	3.89	28	3.52	20	3.52	19	3.72	39	3.31	38	3.8
Malaysia	2014	25	3.59	27	3.37	26	3.56	10	3.64	32	3.47	23	3.58	31	3.92
Portugal	2014	26	3.56	31	3.26	31	3.37	29	3.43	20	3.71	20	3.71	35	3.87

Figure 1.1: Logistics Performance Index (LPI) global ranks year 2014 from The World Bank.

Table 1.1: Logistics performance index (LPI) global ranking score for Malaysia and Singapore

Country	LPI Rank	LPI Score	International Shipments Rank	International Shipments Score	Logistics Competence Rank	Logistics Competence Score
Malaysia	25 th	3.59	10 th	3.64	32 nd	3.47
Singapore	5 th	4.00	6 th	3.7	8 th	3.97

As shown in the table 1.1 above, even though the ranks between Malaysia and Singapore for international shipments are at 10th and 6th in the world, however, for logistics competence, Malaysia currently at 32nd place compared to Singapore at 8th rank. According to The World Bank (2015), logistics competence represents competence and quality of logistics service such as transport operators and custom brokers. From the ranking, it shows that Malaysia is still left behind especially in logistics competencies.

Therefore, in order to compete with Singapore that use the same shipping lane as Malaysia, Malaysia needs to improve the quality in giving the services and have better employees' competencies. This problem is recognized by the government and led to the launched of ETP. According to Muhammad *et al.* (2012), the two main components in ETP are to enhance Human Capital Development Strategic Reform Initiative that will be the critical enabler of Malaysia transformation by up-skilling and upgrading the workforce. The strategy of ETP focuses on five regional economic

corridors and one of it is Iskandar Malaysia. The current Prime Minister announced various incentives in order to encourage human capital development to move Malaysia's economy to the higher level and achieve Vision 2020 (Muhammad *et al.*, 2012). This encouragement is aligned with services sectors that contribute more than half of Malaysia's GDP (51%), in which this sector needs to have competent manpower (PricewaterhouseCoopers, 2012).

This study focuses on Iskandar Malaysia as it has been contributing a high percentage in committed investments, and area of logistics has been one of the six identified growth nodes besides areas of education, healthcare, finance, creative industry, and tourism. Therefore, skilled human capital is essential for Malaysia's economic growth in general, and particularly in the economic region. Human capital is generally seen as a set of knowledge, skills and abilities (KSAs) of an individual that are used in the activities that stimulate economic growth and development (Muhammad *et al.*, 2012). The other reason for this research to be conducted in Iskandar Malaysia is because it is the nearest location to Singapore compared to another four regions. In addition, Iskandar Malaysia is rapidly growing for the past seven years since 2006 (Tek *et al.*, 2013).

Logistics has become a significant role in supporting export activities in rapid growth of global market (Banomyong & Supatn, 2011). According to IM Biz Watch (2013), logistics sectors in Iskandar Malaysia contribute to the committed investment by RM4.81 billion. Due to the international logistics services, logistics has become effectively as third party logistics service providers. According to Banomyong *et al.*, (2011), in order to compete in the logistics market, many freight companies rebranded themselves into third party logistics (3PL).

Logistics service quality plays a significant role in determining customers' satisfaction, loyalty as well as long-term relationship (Banomyong *et al.*, 2011). There are many researches done related to service quality in logistics sectors. For example, Banomyong *et al.*, (2011) is one of it. Banomyong *et al.*, (2011) determines that there are six dimensions of SERVQUAL model for the logistics sector. They are tangible, reliability, responsiveness, assurance, empathy and service cost. Even though this research was done at South East Asia countries, however, Malaysia was not included. There are few studies were done in Malaysia about service quality. However, most of it covers banking, and sales and marketing sector. There are lack of researches done in logistics sector specifically in Malaysia. Furthermore, there is

also lack of researches specifically in Iskandar Malaysia's logistics sectors in order to improve service quality of logistics sectors in that area. Therefore, this research aims to identify customers' satisfactions towards third party logistics companies in Iskandar Malaysia in order to provide better service and retain their customers.

Previous research by Shieh *et al.* (2010) has identified that there is a relationship between the performances applied based on knowledge, skills and abilities (KSAs) and service quality. This shows that KSAs and dimensions of service quality do have strong relation in order to determine customer satisfaction. Furthermore, according to Hancemark *et al.* (2004), they stated that there is a relationship between employees' competencies with the service quality, hence, triggers customers' satisfactions and loyalty. The experience and the attitudes of a person or individual who has a direct contact with customers are likely to influence the customers' satisfaction and loyalty.

Thus, in conclusion, this research further study the Iskandar Malaysia's third party logistics employees' KSAs required to deliver better service quality in order to achieve customers' satisfaction.

1.4 Research questions

Based on the problem statements above, these are the research questions obtained for this study.

- i. What service quality dimensions do customers perceive to be necessary in Iskandar Malaysia's 3PL service companies to meet customers' satisfaction?
- ii. Is there any gap between service quality dimensions of 3PL towards customers' satisfaction?
- iii. What are the elements of KSAs required to provide excellent service among employees of logistics service providers?

1.5 Research objectives

From previous research questions, this study comes out with four research objectives.

- i. To determine service quality dimensions that customers perceive to be necessary in Iskandar Malaysia's 3PL service companies to meet customers' satisfaction.
- ii. To identify the gaps between service quality dimensions of 3PL towards customers' satisfaction.
- iii. To explore the elements of KSAs required for employees of logistics service providers to provide excellent service.

1.6 Research Scope

This research is to evaluate service quality of third party logistics service providers in Iskandar Malaysia by evaluating SERVQUAL model with six dimensions, which they are tangible, reliability, responsiveness, assurance, empathy and service cost, and to explore their employees' knowledge, skills and abilities (KSAs). This research covers the area of Iskandar Malaysia (IM), which consists of Johor Bharu, Kulaijaya, and three districts from Pontian, Johor, Malaysia.

Unit of analysis consists of two approaches, quantitative and qualitative. The first phase is quantitative method which focuses on the customers' satisfaction towards logistics service providers' service quality. Questionnaires were distributed to the customers of IM logistics service providers which cover three pillars; Electrical and Electronics, Petro and Oleo Chemical, and Food and Agro Processing. The second phase is qualitative method in exploring employees' KSAs which it involves interview sessions with HR Managers or representatives of third party logistics (3PL) service companies of IM that provide outsourcing logistics activities such as transportation, warehouses and distribution centres.

1.7 Thesis structure

This thesis is structured as follows:

Chapter 1 consists of introduction about research topic, research background, problem statement, research questions, research objectives, research scope, the conceptual framework for this study, significance of study, and brief explanation of thesis structure for each five chapters.

Chapter 2 consists of literature review that explains about the relevant previous research that related with this research. The content of this chapter consists of the explanation of the definition of logistics and third party logistics in depth, and also its contribution to the global market. Human capital development is also explained in this chapter. Furthermore, the background of knowledge, skills and abilities (KSAs) is explained further as well as the connection of KSAs in logistics sector. Previous research about the relationship between customers' satisfaction and KSAs of the service providers is included in this chapter.

Chapter 3 explains the methodology of this research. This techniques and method were used to achieve research objectives. This chapter covers the explanation about research design, sampling method, targeted group method, content of questionnaires, data collection procedure, controlled and statistics analysis procedure that are used in order to achieve research objectives.

Chapter 4 explains about the data analysis from both approaches. These questionnaires have been distributed to the clients of Iskandar Malaysia and interviews were held with the HR Manager or representatives of third party logistics in Iskandar Malaysia. In this chapter, the questionnaire are analysed to answer the first two research objectives. In order to do so, there are several analyses were done by using IBM SPSS such as descriptive analysis, multiple response analysis, gap and quadrant analysis, and paired t-test analysis. As for the third research objective, transcription analysis was conducted in order to explore the variables of knowledge, skills and abilities required in logistics services sector.

Chapter 5 consists of discussion on the research findings and result whereby it was explained further and had short summary at the end of the discussion. The limitations and problems that encountered during the whole process of collecting data, suggestions and further research were also included in this last chapter.

1.8 Conclusion

This research aims to identify the required employees' knowledge, skills and abilities (KSAs) of third party logistics companies in Iskandar Malaysia to deliver best service quality to their customers. This research has contributed positive impact to logistics service providers in Iskandar Malaysia to improve and upgrade their quality of services towards their customers' satisfaction.



CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

Iskandar Malaysia is the closest development region to Singapore. According to Mecometer (2014), Singapore leads on the fifth rank of global Logistic Performance Index (LPI) whereas Malaysia is at the 25th rank. Logistics is one of the services sectors that contribute to the GDP and services sectors are the sectors that empowered by manpower. In order to deliver best service quality, it is essential to first to know what are the dimensions of service quality that are crucial to gain customers' satisfaction. The best service quality is initiated by the workforce itself. Human Capital Development Strategic Reform Initiative (SRI) is one of the elements in ETP that will initiate the transformation of the workplace as well as the workforce (Muhammad *et al.*, 2012). Human capital development is strongly emphasized to ensure a steady supply of manpower with knowledge, skills and abilities (KSAs) in industrial and services sectors.

2.2 What is quality?

The definition of quality has evolved over the years and it varies from one person to another and it depends heavily on the nature of the industry (Antony, 2013). He added that:

'We have also witnessed a change in the role of the quality function over the years from merely inspection activities to quality control to quality assurance to total quality management (TQM) to Six Sigma as a powerful strategy to reduce defects at low costs and maximise customer satisfaction.' (Antony, 2013:677).

Goetsch & Davis (2010) stated that, for people who want to understand total quality, must first understand what quality is. They also stated that quality can be defined and measured because customers can define quality very clearly by using specifications, standards, and other measures. However, there is no specific definition of quality, but there are similarities that exist among the definitions.

There are three similar definitions of quality stated by Goetsch & Davis (2010), and supported by other researchers, which, i) quality involves meeting and exceeding customer expectations (Sadikoglu & Olcay, 2014; Talib *et al.*, 2013; Antony, 2013; Gharakhani *et al.*, 2013; Steiber & Alänge, 2012; Boateng-Okrah & Fening, 2012), ii) quality applies to products, services, people, processes, and environments (Sadikoglu & Olcay, 2014; Antony, 2013; Gharakhani *et al.*, 2013; Talib *et al.*, 2013; Steiber & Alänge, 2012; Boateng-Okrah & Fening, 2012; Yapa, 2012), and, iii) quality is an ever-changing state (Psomas & Jaca, 2016; Sadikoglu & Olcay, 2014; Antony, 2013; Gharakhani *et al.*, 2013; Talib *et al.*, 2013; Steiber & Alänge, 2012; Yapa, 2012). Goetsch & Davis (2010) sums the definition of quality as:

'Quality is a dynamic state associated with products, services, people, processes, and environments that meets or exceeds expectations and help produce superior value'. (Goetsch & Davis, 2010:5).

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